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Yukihito Furuhashi

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EXAMINER

PHAM, MICHAEL

ART UNIT

PAPER NUMBER

2167

DATE MAILED: 10/04/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/690,904	FURUHASHI ET AL.	
	Examiner	Art Unit	
	Michael D. Pham	2167	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 13 July 2006.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1 and 4-12 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1 and 4-12 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

Detailed Action

1. Claims 1 and 4-12 have been examined.
2. Claims 1 and 4 - 12 are pending.
3. Claims 1 and 4 - 12 are rejected as detailed below.
4. Claims 2-3 have been cancelled.

Specification

1. Objection to abstract is respectfully withdrawn.
2. Objections towards claim 3 are respectfully withdrawn due to cancellation of claim 3.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1 and 4-12 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent 6442538 by Nojima (hereafter Nojima) in further view of U.S. Patent 6892193 by Bolle et. al. (hereafter Bolle) and U.S. Patent 6810149 by Squilla et. al. (hereafter Squilla).

Claim 1:

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A system in which various feature values possessed by a multimedia object are used to search for a similar object, said system comprising:

a feature value calculation section configured to calculate one or more types of feature values from the multimedia object which is to be registered [Nojima, col. 4 lines 56-65, *when video data is to be registered in the database*, the video data is first inputted to the video input terminal unit and then *transmitted* through the communication network to the video retrieval server. *In parallel with the transmission* of the video data from the video input terminal unit to the video retrieval server or after completion of the transmission, information for retrieving the *video data is extracted from the video* and is registered in the database of the video file storage area in the video archive. Col. 5 lines 10-13, *with respect to the extracted still image its image feature vector is calculated* by the image feature calculation processing module as a reference image upon retrieval or reference frame.].

However, Nojima does not explicitly disclose a **category setting section configured to set a recommended category, which is based on the feature value calculated by the feature value calculation section, on a database storing the multimedia object, the recommended category is provided to a user as an initial value of a registration category for allowing the user to determine the registration category of the multimedia object to be registered; and**

On the other hand, Bolle discloses classifiers based on features, for multimedia items [abstract]. On the other hand, Bolle does not explicitly disclose the recommended category is provided to a user as an initial value of a registration category for allowing the user to determine the registration category of the multimedia object to be registered.

However, Squilla discloses col. 5 lines 21-24, that it is to be understood that any desired number of selection categories may be provided by the software program or created by the user. Squilla discloses that icons can be automatically assigned to the proper category, col. 5 lines 22-25. Squilla further discloses, Col. 6 lines 57-59, that the present invention also allows the user to modify the selection categories and/or icons at any time by use of the add button. Squilla further discloses col. 7 line 44-45, that the user may categorize and reorganize any or all images desired.

All inventions are directed towards media databases. Not only that but all sort similarities between media items. It would have been obvious to one of ordinary skill at the time the invention was made to have modified Nojima to have included a **category setting section configured to set a recommended category, which is based on the feature value calculated by the feature value calculation section, on a database storing the multimedia object, the recommended category is provided to a user as an initial value of a registration category for allowing the user to determine the registration category of the multimedia object to be registered** based on the disclosure of Bolle and Squilla. One of ordinary skill in the art at the time the invention was made would have been motivated to do so for the purpose of determining whether a given media item is equal to one of, or is similar to one of, a plurality of temporal media items; or, determining whether it is equal or similar to a media item or equal or similar to a sub segment in a media item collection. Determining similarity is an important multimedia categorization problem. (Bolle Col. 2 lines 17-21). Furthermore, improving the system by allowing a user to personalize the way media is cataloged [Squilla, abstract] and to specify categories created by computer. In that way, easier retrieval will occur because the intended user has set forth a personal categorization style.

Finally, Nojima in combination of Bolle and Sequilla discloses,

a registration section [Nojima, abstract, registration system] configured to associate with the multimedia object which is to be registered, the feature value calculated by the feature value calculation section [Nojima, col. 4 lines 56-65 and Col. 5 lines 10-13] and the registration category [Bolle, Abstract] determined by the user [Squilla, col. 6 lines 50-53], said registration section registering the multimedia object [Nojima, Abstract], the feature value [Nojima, Col. 5 lines 10-13, col. 1 lines 5-10], and the registration category determined by the user [Squilla, col. 6 lines 50-53] into the database [Bolle, Classifiers used in database, Col. 32 lines 59-67].

Claim 4:

The system according to claim 1, wherein the category setting section selects a plurality of categories based on the feature value calculated by the feature value calculation section [Bolle, Col. 28 lines 1-17, plurality of categories], and displaying the plurality of selected categories [Squilla, col. 5 lines 25-35, selection categories having icons that identify particular events and also a corresponding list set forth] order of high accuracy [Nojima col. 1 lines 30-35].

Claim 5:

The combination of Nojima, Bolle, and Sequilla further disclose, wherein the category setting section displays the plurality of categories selected based on the feature value [Bolle,

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Abstract Categories based on features] as a list indicating the categories having the accuracy which is not less than a set threshold value, and a list indicating the categories having the accuracy [Squilla, col. 5 lines 25-35, displays category lists, which includes lists that are not relevant.] which is less than the threshold value [Nojima, Col. 1 lines 30-35, threshold similarity ordered listing].

Claim 6:

Nojima and Bolle disclose the system according to claim 1 and further disclose, **wherein the category setting section selects the category which is the registration end based on the feature value calculated by the feature value calculation section** [Bolle, abstract, categories based on features], however do not explicitly disclose **displays the selected category to which a symbol representing the accuracy is attached** [Squilla discloses icons appropriately assigned to categories (Col. 5 lines 15-25)].

Claim 7:

The combination of Nojima, Bolle, and Sequilla further disclose, **wherein the category setting section includes:**

a discriminant analysis section configured to discriminate/analyze the feature value of the registered multimedia object with respect to the registration-end category [Bolle, Col. 2 lines 40-49]; and

a storage section configured to store a discriminant analysis result of the discriminant analysis section [Bolle, Col. 32 lines 59-64, classifiers are stored. Since

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discriminant methods are essentially classifiers, they are stored.], **wherein said category setting section uses the discriminant analysis result stored in the storage section to determine the category which is the registration end** [Bolle, Col. 2 lines 40-49].

Claim 8:

The combination of Nojima, Bolle, and Sequilla further disclose, **wherein the discriminant analysis section discriminates/analyzes the feature value with respect to the registered objects including the multimedia object constituting the registration object, after the category setting section determines the registration end of the multimedia object** [Bolle, col. 34 lines 39-44, comparison of target stream and reference segments].

Claim 9:

The combination of Nojima, Bolle, and Sequilla further disclose **comprising: an object designation section configured to designate an arbitrary multimedia object as the multimedia object which is the registration object** [Nojima, col. 6 lines 5-10]; **and an attribute designation section configured to carry out at least one of designation and input of attribute information of the multimedia object designated by the object designation section** [Nojima, col. 5 lines 50-56].

Claim 10:

The combination of Nojima, Bolle, and Sequilla further disclose, **wherein the category setting section includes an attribute designation section configured to carry out at least one of**

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designation and input of attribute information of the multimedia object which is the registration object [Bolle, Col. 33 lines 5-8].

Claim 11:

Claim 11 contains similar limitations as that of claim 1 except that claim 11 is directed towards the method instead of the system. Therefore, claim 11 is rejected for the similar reasons as that of claim 1.

Claim 12:

Claim 12 contains similar limitations as that of claim 1 and is therefore rejected under similar reasons as that of claim 1.

Response to Arguments

Applicant's arguments with respect to claims 1-12 have been considered but are moot in view of the new ground(s) of rejection. Applicant's asserted the following (numbered):

1. Page 8, that Nojima contains no description concerning categorization and specifically does not disclose automatic calculation of a category.

In response to applicant's arguments against the references individually, one cannot show nonobviousness by attacking references individually where the rejections are based on combinations of references. See In re Keller, 642 F.2d 413, 208 USPQ 871 (CCPA 1981); In re

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Merck & Co., 800 F.2d 1091, 231 USPQ 375 (Fed. Cir. 1986). In particular Applicant's have argued Nojima alone. The combination of Nojima and Bolle disclosed the previous limitation wherein Bolle disclosed the aspect of categorization, and further automatic calculation of a category. Regardless the argument is now moot in view of new grounds of rejection.

2. Page 8-7, that Bolle does not disclose a feature of providing an initial category value to a user who determines the category with which a multimedia object will be registered, which is a feature recited in the independent claims of the present invention.

The recited feature was not previously in the claimed limitation. Arguments are now moot, in view of new grounds of rejection.

3. Page 11, that in Squilla, categories of the icons are automatically set by the system. "the set categories cannot be changed by the user" (see col. 5 lines 22-25). Therefore, Squilla cannot suggest setting a recommended category as an initial category value and allow a user to determine a registration category for the multimedia object to be registered as recited in independent claim 1.

The examiner respectfully disagrees with applicant's assertion that in col. 5 lines 22-25 Squilla states "the set categories cannot be changed by the user", and therefore Squilla cannot suggest a recommended category as an initial category value and allow a user to determine a registration category for the multimedia object to be registered. The cited lines that the

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applicant's have suggested does not appear to suggested that the set categories cannot be changed by the user in the Squilla reference. It is noted that col. 5 line 22-25 does not even contain the quoted citation as applicant's have suggested.

Further, it appears the Squilla reference discloses the opposite of what applicants have stated. In particular, Squilla states in col. 4 lines 22-24 that—"it is to be understood that any desired number of selection categories may be provided by the software program or created by the user". Further stating in col. 6 lines 51-53 and 58-60 that "the user would initially review a plurality of selection categories and image icons and select the desired categories and icons for use with the program", and that "the present invention allows the user to modify the selection categories and/or icons at any time". That is if the icons that are automatically assigned to the proper selection category [col. 6 lines 22-23], the user may modify the selection categories and/or icons at anytime [col. 6 lines 58-60]. Therefore, applicant's arguments over the Squilla reference is unpersuasive over the cited art.

4. As to the main argument, Page 9-10, the system automatically determines a recommended category by performing calculation, the recommended category is presented to the user as an initial value, the recommended category can be changed by the user.

In response, the examiner respectfully disagrees. The new combination of Nojima, Bolle, and Squilla discloses the cited limitation. Applicant's agree that Nojima discloses a system for registering video information in a database and retrieving it therefrom; that Bolle discloses a

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system for inputting of an object, calculation of feature values of the object, categorization based on the feature values, and database registration performed while associating items with each other; and that Squilla discloses a system which categorizes digital images. However applicant's disagree that the cited references do not disclose even in combination that the system automatically determines a recommended category by performing a calculation; the recommended category is presented to the user as an initial value; and finally the recommended category can be changed by the user.

In particular the applicants refer to is the following limitation from claim 1:

a category setting section configured to set a recommended category, which is based on the feature value calculated by the feature value calculation section, on a database storing the multimedia object, the recommended category is provided to a user as an initial value of a registration category for allowing the user to determine the registration category of the multimedia object to be registered

In respect, the examiner disagrees, because of the following:

a category setting section configured to set a recommended category [Squilla, icons that are automatically assigned to the proper selection category (col. 6 lines 22-23)], which is based on the feature value calculated by the feature value calculation section [Bolle, abstract, classifiers based on features, for multimedia items], on a database storing the multimedia object, the recommended category is provided to a user as an initial value of a registration category for allowing the user to determine the registration category of the multimedia object to be

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registered [Squilla, icons that are automatically assigned to the proper selection category (col. 6 lines 22-23), the user may modify the selection categories and/or icons at anytime (col. 6 lines 58-60)].

Hence, it appears the combination of the cited references appear to suggest the claimed limitation. . Squilla discloses that the system automatically determines a recommended category (col. 6 lines 22-23), Bolle (abstract) discloses categories are based on calculated feature values, and finally Squilla discloses that a user can change the recommended category (col. 6. lines 58-60). Therefore, applicant's assertions regarding that the cited references do not disclose even in combination that the system automatically determines a recommended category by performing a calculation; the recommended category is presented to the user as an initial value; and finally the recommended category can be changed by the user is unpersuasive. It is further noted automatically determines a recommended category is not recited in the claim limitation.

Conclusion

The prior art made of record listed on PTO-892 and not relied, if any, upon is considered pertinent to applicant's disclosure.

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Michael D. Pham whose telephone number is (571)272-3924. The examiner can normally be reached on Monday - Friday 9am - 5:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John Cottingham can be reached on 571-272-7079. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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